

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P284517

Luminaire Tested: **4SNLED-LD5-81HL-SLW-UNV-L835-CD1-U**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P284517
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P#)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4SNLED-LD5-81HL-SLW-UNV-L835-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
SQUARE FROSTED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8141.0 lumens
Efficiency: N/A
Efficacy: 103.1 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.56 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Semi-Direct

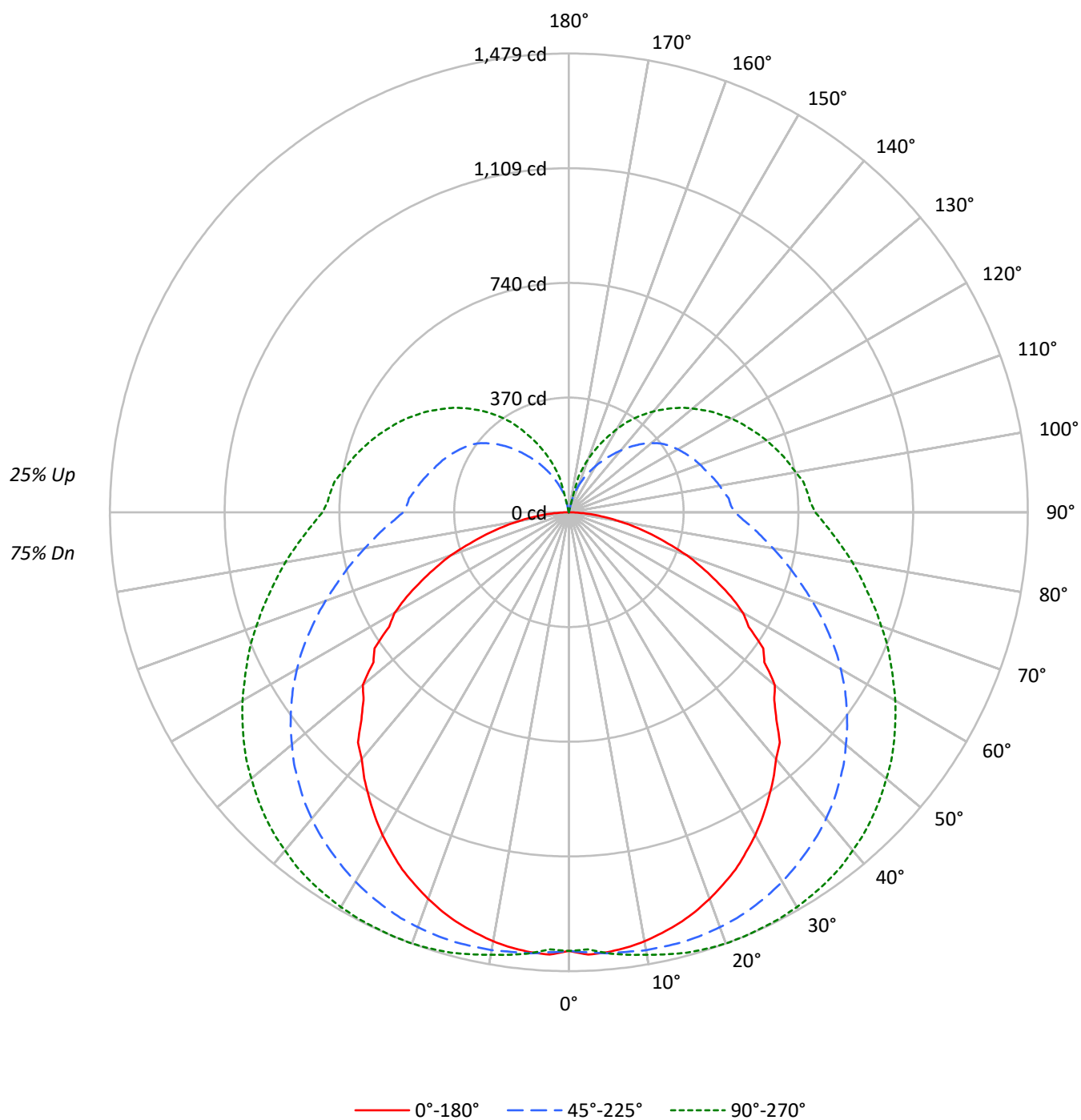
Input Watts (W): 79
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P284517

CATALOG NUMBER: 4SNLED-LD5-81HL-SLW-UNV-L835-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P284517

CATALOG NUMBER: 4SNLED-LD5-81HL-SLW-UNV-L835-CD1-U

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					10
RW	70	50	30	10	70	50	30	10		50	30	10			50	30	10			50
RCR																				
0	113	113	113	113	107	107	107	107		97	97	97			88	88	88			79
1	100	94	89	84	95	89	84	80		80	76	73			72	69	66			64
2	90	80	72	66	85	76	69	63		68	63	58			61	57	53			55
3	81	69	60	53	76	66	58	51		59	53	47			53	48	43			47
4	74	61	51	44	69	58	49	43		52	45	39			47	41	36			42
5	67	54	44	37	63	51	43	36		46	39	33			42	35	31			37
6	62	48	39	32	58	46	37	31		41	34	29			37	31	27			34
7	57	43	34	28	54	41	33	27		37	30	25			34	28	23			30
8	53	39	31	25	50	37	29	24		34	27	22			31	25	21			28
9	49	36	27	22	47	34	26	21		31	24	20			28	23	18			26
10	46	33	25	20	44	31	24	19		29	22	18			26	21	16			24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11426	11426	11426
5°	11513	11290	11206
10°	11458	11191	11144
15°	11380	11131	11168
20°	11272	11080	11190
25°	11165	11039	11207
30°	11011	11005	11267
35°	10839	10967	11344
40°	10676	10959	11417
45°	10475	10933	11508
50°	10505	10909	11600
55°	10317	10909	11737
60°	9941	10916	11897
65°	9390	10929	12119
70°	8784	11011	12460
75°	7709	11266	12963
80°	6511	11808	13798
85°	4830	12909	15018



TEST NUMBER: P284517

CATALOG NUMBER: 4SNLED-LD5-81HL-SLW-UNV-L835-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.9	1.7
10°-20°	402.7	4.9
20°-30°	640.1	7.9
30°-40°	821.5	10.1
40°-50°	927.7	11.4
50°-60°	946.6	11.6
60°-70°	877.0	10.8
70°-80°	742.4	9.1
80°-90°	592.6	7.3
90°-100°	503.2	6.2
100°-110°	448.4	5.5
110°-120°	381.9	4.7
120°-130°	303.3	3.7
130°-140°	215.2	2.6
140°-150°	128.5	1.6
150°-160°	59.9	0.7
160°-170°	14.2	0.2
170°-180°	0.0	0.0
0°-30°	1178.7	14.5
0°-40°	2000.2	24.6
0°-60°	3874.4	47.6
0°-90°	6086.5	74.8
90°-120°	1333.5	16.4
90°-150°	1980.4	24.3
90°-180°	2055.0	25.2
0°-180°	8141.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1414	1414	1414	1414	1414	
5°	1423	1412	1427	1427	1427	135
15°	1372	1383	1433	1459	1469	387
25°	1270	1312	1404	1454	1477	585
35°	1123	1205	1336	1418	1452	703
45°	945	1073	1232	1339	1385	734
55°	765	894	1092	1226	1280	672
65°	524	698	924	1082	1144	520
75°	276	488	748	932	997	293
85°	71	314	597	790	857	77
90°	4	257	534	727	794	6
95°	0	241	517	706	771	0
105°	0	222	471	648	712	0
115°	0	206	428	583	641	0
125°	0	178	380	515	564	0
135°	0	132	306	434	474	0
145°	0	86	214	325	371	1
155°	2	54	132	199	247	1
165°	2	29	59	82	117	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P284517

CATALOG NUMBER: 4SNLED-LD5-81HL-SLW-UNV-L835-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1413.9	1413.9	1413.9	1413.9	1413.9
2.5°	1426.8	1411.9	1419.6	1417.6	1409.8
5°	1423.2	1411.9	1426.8	1426.8	1426.8
7.5°	1415.5	1407.7	1428.9	1436.7	1438.7
10°	1404.1	1404.1	1433.0	1444.4	1448.0
12.5°	1388.6	1394.3	1433.0	1450.1	1459.4
15°	1371.6	1383.0	1433.0	1459.4	1469.2
17.5°	1350.4	1369.5	1428.9	1461.4	1474.9
20°	1325.7	1354.6	1423.2	1461.4	1479.0
22.5°	1298.8	1335.5	1415.5	1457.8	1479.0
25°	1270.4	1312.2	1404.1	1453.7	1476.9
27.5°	1235.8	1289.5	1390.7	1448.0	1474.9
30°	1201.3	1262.7	1375.2	1440.3	1469.2
32.5°	1163.1	1233.8	1356.1	1428.9	1461.4
35°	1122.8	1205.4	1335.5	1417.6	1452.1
37.5°	1082.5	1170.8	1314.3	1402.1	1440.3
40°	1038.6	1136.2	1289.5	1383.0	1423.2
42.5°	1006.1	1100.1	1262.7	1363.9	1406.2
45°	945.2	1073.2	1231.7	1339.1	1385.0
47.5°	897.2	1021.6	1201.3	1314.3	1361.8
50°	866.7	979.3	1165.1	1285.4	1335.5
52.5°	794.0	950.9	1130.5	1257.0	1310.2
55°	765.0	893.6	1092.3	1226.0	1279.7
57.5°	686.6	853.3	1054.1	1192.0	1247.2
60°	648.4	797.6	1011.8	1157.4	1214.7
62.5°	589.0	750.1	970.0	1119.2	1178.5
65°	524.0	698.5	924.0	1082.5	1144.0
67.5°	463.1	646.8	880.2	1044.3	1109.4
70°	403.7	593.1	834.2	1006.1	1071.2
72.5°	334.5	539.5	789.8	970.0	1035.0
75°	275.7	487.8	748.0	931.8	996.8
77.5°	217.8	438.3	707.7	897.2	962.2
80°	164.7	390.3	667.5	861.1	927.7
82.5°	114.6	350.0	631.3	826.5	891.5
85°	70.7	313.9	596.8	789.8	856.9
87.5°	32.5	281.3	562.2	755.8	824.4
90°	3.6	256.6	533.8	726.8	794.0
92.5°	2.1	248.8	522.4	713.4	778.5
95°	0.0	241.1	516.7	705.7	770.7
97.5°	0.0	233.3	503.3	694.3	761.4
100°	0.0	229.7	493.5	677.3	742.3
102.5°	0.0	224.0	482.2	661.8	726.8
105°	0.0	222.0	470.8	648.4	711.9
107.5°	0.0	217.8	458.9	631.3	694.3
110°	0.0	214.2	449.6	615.9	677.3



TEST NUMBER: P284517

CATALOG NUMBER: 4SNLED-LD5-81HL-SLW-UNV-L835-CD1-U

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	210.6	439.8	600.9	659.7
115°	0.0	206.5	428.5	583.3	640.6
117.5°	0.0	200.8	417.1	566.3	623.6
120°	0.0	193.1	405.8	550.8	604.5
122.5°	0.0	185.3	393.9	531.7	583.3
125°	0.0	178.1	380.5	514.7	564.2
127.5°	0.0	166.2	365.5	495.6	541.5
130°	0.0	154.9	346.4	476.5	520.4
132.5°	2.1	143.5	327.3	455.3	499.2
135°	0.0	132.2	306.1	434.1	474.4
137.5°	0.0	122.3	282.9	411.4	449.6
140°	0.0	111.0	260.2	384.6	424.9
142.5°	0.0	97.6	237.5	355.7	398.0
145°	0.0	86.2	214.2	325.2	371.2
147.5°	2.1	76.4	193.1	292.7	342.3
150°	2.1	68.7	172.4	260.2	309.7
152.5°	2.1	61.4	151.3	229.7	277.2
155°	2.1	53.7	132.2	198.7	246.8
157.5°	2.1	45.9	111.0	168.3	214.2
160°	2.1	40.3	91.9	141.4	183.8
162.5°	2.1	34.6	74.9	111.0	151.3
165°	2.1	28.9	59.4	82.1	116.7
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)